

**Work Order ID 62291**

September 24, 2010 2:47:33 PM



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Item ID: D3507-1-BENT

Accept



Setup Start



Revision ID:

Stop



Item Name: Skidtube Assembly EC135

Start Date: 9/24/10 Start Qty: 1.00



Cust Item ID:

Required Date: 10/08/10 Req'd Qty: 1.00



Customer:

Reference:

Approvals: Process Plan: CZ Date: 10/9/24 Tooling:

Date:

Run Start



QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_

Date:

Stop



| Sequence ID/<br>Work Center ID | Operation<br>Description | Set Up/<br>Run Hours | Tool ID | Tool # | Plan<br>Code | Accept<br>Qty | Reject<br>Qty | Reject<br>Number | Insp.<br>Stamp |
|--------------------------------|--------------------------|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|
|--------------------------------|--------------------------|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|

Draw Nbr

Revision Nbr

D3274

Rev D

120

0.00



BENDING MACHINE - SKIDTUBES

CNC Bend 1

Memo

0.00

CNC Delta 100 Bender

1- Bend tube as per program on CNC Bender and Dwg D3507, use DT9632 bending aide  
2- Cut FWD END of tube as per dwg D3507

10-10-18

140

0.00



QC5- Inspect part completeness to step on W/O

QC

Memo

0.00

Quality Control

1 - BE 10-10-18

300

0.00

Identify as per dwg & Stock Location: LG

Packaging

Memo

0.00

Packaging

Packaging

1 - BE 10-10-18

| W/O: |      | WORK ORDER CHANGES |    |      |     |                                     |                          |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE   | By | Date | Qty | Approval<br>Chief Eng /<br>Prod Mgr | Approval<br>QC Inspector |
|      |      |                    |    |      |     |                                     |                          |
|      |      |                    |    |      |     |                                     |                          |

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

| NCR: |      | WORK ORDER NON-CONFORMANCE (NCR) |                             |                                 |                |                           |                       |                          |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC<br>Section A   | Corrective Action Section B |                                 |                | Verification<br>Section C | Approval<br>Chief Eng | Approval<br>QC Inspector |
|      |      |                                  | Initial<br>Chief Eng        | Action Description<br>Chief Eng | Sign &<br>Date |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |

**NOTE:** Date & initial all entries

**Work Order ID 62291**

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September 24, 2010 2:47:33 PM

Item ID: D3507-1-BENT

Accept



Setup Start



Revision ID:

Stop



Item Name: Skidtube Assembly EC135

Start Date: 9/24/10 Start Qty: 1.00



Cust Item ID:

Required Date: 10/08/10 Req'd Qty: 1.00



Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Run Start



QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop

Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run Hours

Tool ID

Tool #

Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

310

QC21- Final Inspection - Work Order Release

0.00



QC

Memo

0.00

Quality Control

10/10/2010  
MK

10-10-10

**Dart Aerospace Ltd**

| W/O: |      | WORK ORDER CHANGES |    |      |     |                                     |                          |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE   | By | Date | Qty | Approval<br>Chief Eng /<br>Prod Mgr | Approval<br>QC Inspector |
|      |      |                    |    |      |     |                                     |                          |
|      |      |                    |    |      |     |                                     |                          |

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

| NCR: |      | WORK ORDER NON-CONFORMANCE (NCR) |                             |                                 |                |                           |                       |                          |
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| DATE | STEP | Description of NC<br>Section A   | Corrective Action Section B |                                 |                | Verification<br>Section C | Approval<br>Chief Eng | Approval<br>QC Inspector |
|      |      |                                  | Initial<br>Chief Eng        | Action Description<br>Chief Eng | Sign &<br>Date |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |

**NOTE:** Date & initial all entries

# Picklist Print

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Page 1  
(

Work Order ID: 62291



Parent Item: D3507-1-BENT



Parent Item Name: Skidtube Assembly EC135


Start Date: 9/24/10

Required Date: 10/08/10

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP rev A 10.09.17 new issue EC verified by:DD

| Component Item ID/<br>Item Name   | Replacement<br>Item ID | Mfg/<br>Purch | Bin<br>Item | Primary<br>Location | Last<br>Location | Route<br>Seq ID | Unit of<br>Measure | Qty on<br>Hand | Qty per Kit | Total<br>Qty | Qty<br>Issued | Date<br>Issued | Status |
|---|------------------------|---------------|-------------|---------------------|------------------|-----------------|--------------------|----------------|-------------|--------------|---------------|----------------|--------|
| D2962-150<br><br>3.540 Outer Tube, Extrut |                        | Manufactured  | No          |                     |                  | 100             | Each               | 100.0000       | 1           | 1            |               |                |        |

Location

HALL

28672

59934

Loc Qty

100

27

73

Loc Code

① ——— DP 10-10-18

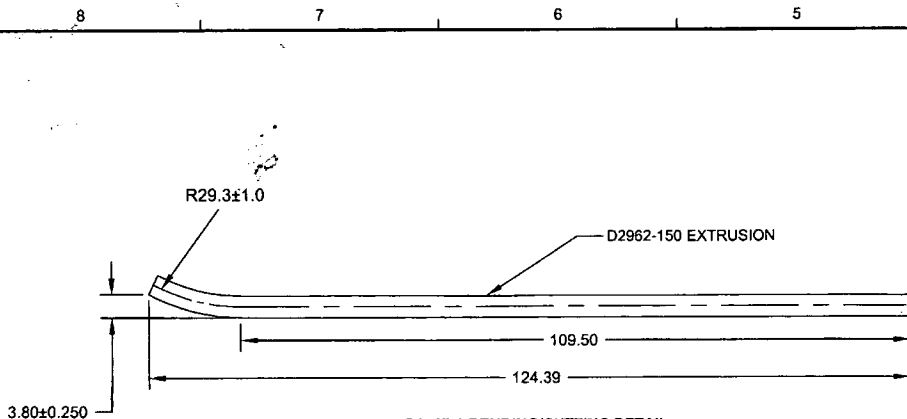
| W/O: |      | WORK ORDER CHANGES |    |      |     |                                     |                          |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE   | By | Date | Qty | Approval<br>Chief Eng /<br>Prod Mgr | Approval<br>QC Inspector |
|      |      |                    |    |      |     |                                     |                          |
|      |      |                    |    |      |     |                                     |                          |

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

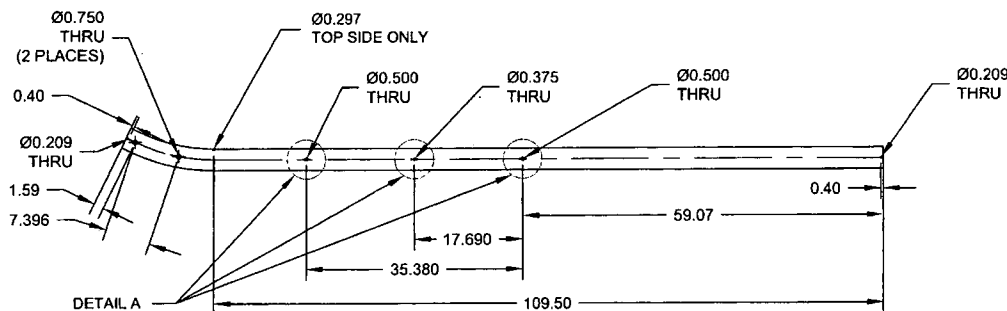
Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

| NCR: |      | WORK ORDER NON-CONFORMANCE (NCR) |                             |                                 |                |                           |                       |                          |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
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|      |      |                                  | Initial<br>Chief Eng        | Action Description<br>Chief Eng | Sign &<br>Date |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |

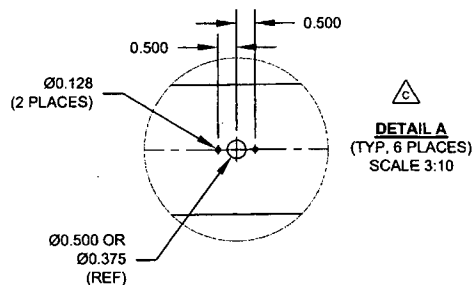
NOTE: Date & initial all entries



**D3507-1 BENDING/CUTTING DETAIL**



**D3507-1 DRILLING DETAIL**



**DETAIL A**

(TYP. 6 PLACES)  
SCALE 3:10

SHOP COPY  
RETURN TO  
ENGINEERING  
UNCONTROLLED COPY  
SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
WORK ORDER  
NO. 62291  
C21019/24

| Qty | Part Number   | Description       |
|-----|---------------|-------------------|
| X   | D3507-041     | SKIDTUBE ASSEMBLY |
| 1   | D2962-150     | EXTRUSION         |
| 1   | D2965         | CAP               |
| 1   | D2965-3       | CAP               |
| 4   | D3492-041     | PLUG ASSEMBLY     |
| 4   | D3492-043     | PLUG ASSEMBLY     |
| 2   | D3492-047     | PLUG ASSEMBLY     |
| 2   | D3504-1       | CROSS BOLT SPACER |
| 1   | D3504-3       | CROSS BOLT SPACER |
| 2   | D3504-5       | CROSS BOLT SPACER |
| 1   | D3505-1       | WEB               |
| 4   | D3506-1       | DOUBLER           |
| 2   | D3506-3       | DOUBLER           |
| 1   | D3508-1       | WEARPLATE         |
| 1   | D3508-3       | WEARPLATE         |
| 1   | D3508-5       | WEARPLATE         |
| 1   | D3508-7       | WEARPLATE         |
| 1   | D3558-1       | GASKET            |
| 1   | D3558-3       | GASKET            |
| 1   | D3558-5       | GASKET            |
| 1   | D3558-7       | GASKET            |
| 38  | AELS-1032-130 | INSERT            |
| 1   | AELS-1032-225 | INSERT            |
| 31  | AN3C4A        | BOLT              |
| 2   | AN3C5A        | BOLT              |
| 2   | AN526C1032-10 | SCREW             |
| 33  | AN960C10L     | WASHER            |
| 12  | MS20601AD4W3  | RIVET             |

**GENERAL NOTES:**

- 1) FINISH:  
CHEMICAL CONVERSION COAT PER DART QSI 005 4.1 PRIOR TO INSERTING  
D3505-1 WEB. POWDER COAT ASSEMBLY GLOSS WHITE (REF 4.3.5.1) PER DART  
QSI 005 4.3. ANTI-SKID PAINT AS INDICATED TO 1.00 ABOVE CENTER LINE PER  
DART QSI 005 4.4
- 2) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) DIMENSIONS: INCHES UNLESS OTHERWISE NOTED
- 4) WELDING TO BE DONE PER DART QSI 004
- 5) INSERT D3505-1 WEB TO LOCATION SHOWN OFF AFT END OF SKIDTUBE AND BOND  
WEB INTO OUTER TUBE WITH NON-STRUCTURAL SIKAFLEX-241/-291 ADHESIVE PER  
DART QSI 015 AFTER BENDING
- 6) USE DART DRILL TEMPLATE DT8868 TO LOCATE AND DRILL Ø0.297 HOLES (38  
PLACES) FOR WEARSHOE INSERTS. INSTALL AELS-1032-130 PER SECTION C-C (38  
PLACES) AFTER FINISH. SEAL WEARPLATE BOLTS WITH SIKAFLEX-241/-291.
- 7) DO NOT INSTALL AN3C4A BOLTS AND AN960C10L WASHERS IN INDICATED  
LOCATIONS

|            |   |   |              |
|------------|---|---|--------------|
| C          | ADD D3504-5, FOR SKID GEAR DEFLECTOR;<br>CHANGE FWD CAP BOLT TO AN526C1032-10 SCREW | DC  | 07.09.19     |
| B          | ADD GASKET, CHANGE HARDWARE MATL  | PH  | 06.11.01     |
| A          | NEW ISSUE   | PH  | 06.04.21     |
| REV.       | DESCRIPTION   | BY  | DATE         |
| DESIGN     | <u>PH</u>   | <b>DART AEROSPACE USA, INC</b>  |              |
| DRAWN      | <u>FC</u>   | PORT HADLOCK, WA  |              |
| CHECKED    | <u>PH</u>   | DRAWING NO.   | REV. C       |
| MFG. APPR. | <u>PH</u>   | D3507   | SHEET 1 OF 2 |
| APPROVED   | <u>PH</u>   | TITLE   | SCALE        |
| DE APPR.   | <u>PH</u>   | EC 135 SKIDTUBE   | NTS          |
| DATE       | 07.09.19  | COPYRIGHT © 2006 BY DART AEROSPACE USA, INC<br>THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL, AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS<br>NOT TO BE USED FOR ANY PURPOSE OR COMPILED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT<br>WRITTEN PERMISSION FROM DART AEROSPACE USA, INC. |              |

RELEASED  
07.11.16





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